

KI to yield iodine species which turn the DPD indicator to red/pink. The intensity of the coloration depends upon the concentration of "total chlorine" species (*i.e.*, active chlorine") present in the sample. This intensity is measured by a colorimeter calibrated to transform the intensity reading into a "total chlorine" value in terms of mg/L Cl<sub>2</sub>. If the active halogen present is active bromine, the result in terms of mg/L Cl<sub>2</sub> is multiplied by 2.25 to express the result in terms of mg/L Br<sub>2</sub> of active bromine.

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**R E M A R K S**

Entry of this preliminary amendment is respectfully requested.

The Specification is amended at paragraph 40 to correct an error in the mathematical calculation instruction, where the word "divided" is used instead of the correct word "multiplied." See paragraph 40, last sentence. Support for this amendment can be found at least at paragraph 35 of the Specification as filed, in the sentence beginning, "Such concentrated solutions can contain, for example..." Additional support can be found at paragraph 59 (1) of the Specification as filed. In each instance of support, the proper arithmetic function for allowing conversion from an expression of active bromine to active chlorine has been performed, namely, when determining the active bromine value, the active chlorine value was *multiplied* by 2.25.

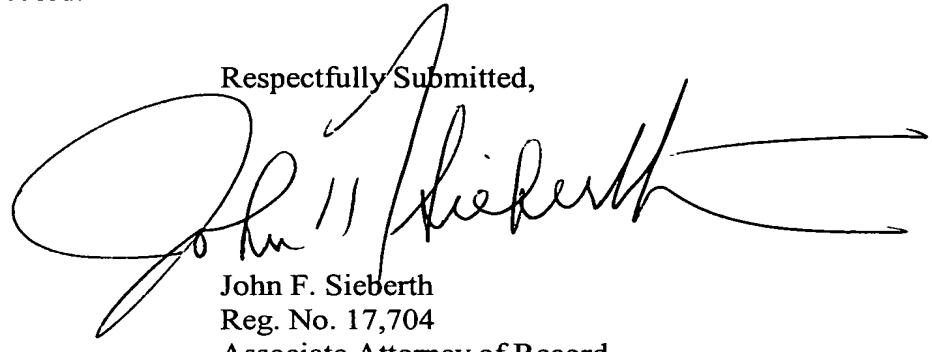
No new matter was added by this Amendment, and Applicant by no means intends to limit the scope of the subject matter claimed via this Amendment.

The attached page titled, "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**," shows the original paragraph 40 of the Specification which has been amended, with markings to show changes made by the foregoing amendment.

Entry of the foregoing amendment is solicited.

Please continue to address all correspondence in this Application to Mr. Philip M. Pippenger at the address of record.

Respectfully Submitted,



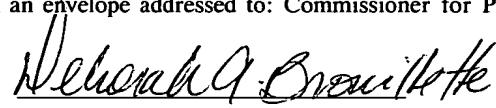
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**CERTIFICATE OF MAILING**

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited on the date shown below with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D. C. 20231.

1-9-03  
Date



Deborah A. Brouillette

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

[0040] The standard DPD test for determination of low levels of active halogen is based on classical test procedures devised by Palin in 1974. See A. T. Palin, "Analytical Control of Water Disinfection With Special Reference to Differential DPD Methods For Chlorine, Chlorine Dioxide, Bromine, Iodine and Ozone", *J. Inst. Water Eng.*, 1974, 28, 139. While there are various modernized versions of the Palin procedures, the recommended version of the test is fully described in *Hach Water Analysis Handbook*, 3rd edition, copyright 1997. The procedure for "total chlorine" (*i.e.*, active chlorine) is identified in that publication as Method 8167 appearing on page 379. Briefly, the "total chlorine" test involves introducing to the dilute water sample containing active halogen, a powder comprising DPD indicator powder, (*i.e.*, N,N'-diethyldiphenylenediamine), KI, and a buffer. The active halogen species present react(s) with KI to yield iodine species which turn the DPD indicator to red/pink. The intensity of the coloration depends upon the concentration of "total chlorine" species (*i.e.*, active chlorine") present in the sample. This intensity is measured by a colorimeter calibrated to transform the intensity reading into a "total chlorine" value in terms of mg/L Cl<sub>2</sub>. If the active halogen present is active bromine, the result in terms of mg/L Cl<sub>2</sub> is multiplied [divided] by 2.25 to express the result in terms of mg/L Br<sub>2</sub> of active bromine.